



# **STOCKPILE REPORT**

## **to the Congress**



**JANUARY - JUNE 1963**

**EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF EMERGENCY PLANNING  
WASHINGTON, D. C. 20504**



EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF EMERGENCY PLANNING  
WASHINGTON 25, D.C.

OFFICE OF THE DIRECTOR

November 29, 1963

The Honorable Carl Hayden  
The President of the Senate Pro Tempore

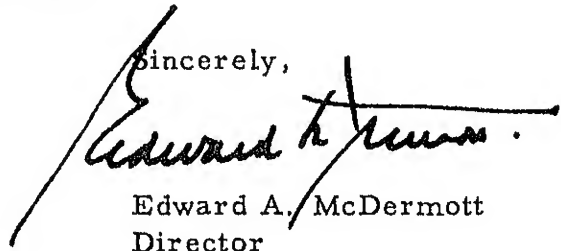
The Honorable John W. McCormack  
The Speaker of the House of Representatives

Sirs:

Pursuant to Section 4 of the Strategic and Critical Materials Stock Piling Act, Public Law 520, 79th Congress, there is presented herewith the semi-annual report to the Congress on the strategic and critical materials stockpiling program for the period January 1 to June 30, 1963.

A statistical supplement to this report was transmitted to you on October 4, 1963.

Sincerely,



Edward A. McDermott  
Director



## Contents

Legislative Background of the Stockpile.....	Page vi
Summary .....	vii
Introduction.....	1
Disposal of Excess Materials.....	1
Supply-Requirements Studies--Conventional War .....	2
Supply-Requirements Studies--Nuclear War.....	2
Summary of Government Inventories of Strategic and Critical Materials .....	3
Status of Stockpile Objectives .....	4
List of Stockpile Objectives Completed, Strategic and Critical Materials (Specification Grade), June 30, 1963.....	5
Other Materials in the National Stockpile.....	5
National Stockpile Inventories, Nonspecification Grades of Materials for Which There Are Stockpile Objectives.....	6
National Stockpile Inventories, Materials for Which There Are No Stockpile Objectives.....	6
National Stockpile Activities.....	7
Procurement and Upgrading .....	7
Disposal Programs.....	7
Disposal of Strategic Materials (Table) .....	9
Activities of the General Services Administration .....	10
Notes on Strategic and Critical Materials .....	12
Activities of the Department of Commerce.....	16
Activities of the Department of Agriculture.....	17
Activities of the Department of the Interior.....	19
Reports Dealing With Stockpile Material Issued by U.S. Geological Survey.....	20
Reports Dealing With Strategic and Other Materials Issued by the Bureau of Mines .....	21
Status of Obligational Operations as of June 30, 1963 .....	23
Total Obligations and Expenditures of Stockpiling Funds, Cumulative and by Fiscal Period Through June 30, 1963.....	24
Expenditures of Stockpile Funds, by Type, Cumulative and for Second Half Fiscal Year 1963	25

## **Legislative Background of the Stockpile**

Congressional actions over the past two decades have firmly established stockpiling as a most important phase of our national security policy. The National Stockpile, the Defense Production Act Inventory, and the Supplemental Stockpile have been authorized by the Congress under different legislative Acts, came into being at different times, were intended to serve different purposes, and are governed by different statutory provisions. Legislative history shows that the Congress recognized clearly that many of our country's resources for strategic and critical materials are inadequate to meet the needs of the military and essential civilian requirements in the event of an emergency and, in its wisdom, took actions to protect the nation's security against the costly material shortages experienced in World War II.

The materials acquired and retained in the Government inventories were authorized by the Strategic and Critical Materials Stock Piling Act (Public Law 520, 79th Cong., amending Public Law 117 of June 7, 1939); the Defense Production Act of 1950, as amended (Public Law 774, 81st Cong.); the Domestic Minerals Program Extension Act of 1953 (Public Law 206, 83d Cong.); the Agricultural Trade Development and Assistance Act of 1954, as amended (Public Law 480, 83d Cong.); the Domestic Tungsten, Asbestos, Fluorspar, and Columbium-Tantalum Production and Purchase Act of 1956 (Public Law 733, 84th Cong.); and the Agricultural Act of 1956 (Public Law 540, 84th Cong.). The broad purposes of these Acts have been to provide for adequate supplies to meet the military requirements and essential civilian needs in the event of war, to encourage the development of sources within the United States, to encourage foreign barter for strategic materials, and to prevent wherever possible a dangerous and costly dependence of the United States upon foreign countries as a source of supply in wartime.

## Summary

This report covers principal activities in stockpile planning for the period January 1 through June 30, 1963, under the provisions of Public Law 520 (79th Congress), The Strategic and Critical Materials Stock Piling Act.

Within the framework of recommendations contained in the Executive Stockpile Committee's report to the President, entitled "Disposing of Excess Stockpile Materials", the Office of Emergency Planning is working to develop a long-range disposal program. OEP has established a special interdepartmental task group to prepare guidelines for the development of long-range disposal plans on a commodity-by-commodity basis.

Supply-requirements studies are being conducted for all stockpile materials in order to develop up-to-date objectives which will reflect present military, industrial, and other essential needs in the event of a conventional war emergency. Guidelines for Computing the Supplies and Requirements for Resources for Conventional War were developed by OEP. These have been transmitted to interested Government agencies and form the basis for the interagency conventional war supply-requirements studies. New objectives reflect a policy to establish a single objective for each stockpile material. The new objectives will reflect the approximate calculated emergency deficits for the materials for conventional war.

Studies are also under way to determine stockpile needs to meet the requirements of general nuclear war including reconstruction. OEP has completed a postattack economic model, referred to as a "rough-cut" study, for agency guidance in developing postattack supply-requirements studies.

Strategic materials held in all Government inventories on June 30, 1963, amounted to \$8.7 billion at acquisition cost and \$7.4 billion at estimated market value. Of this amount, \$5.8 billion at cost was in the National Stockpile. Of the total materials in Government inventories, \$4.9 billion at cost and \$3.8 billion at estimated market value is considered to be in excess of stockpile objectives.

Disposals of strategic materials worth \$78.9 million were made in the January-June 1963 reporting period.

Barter contracts involving approximately \$28.6 million of strategic materials were made in this reporting period. Cumulative deliveries of strategic materials under the barter program amount to \$1.5 billion.





## Introduction

The Office of Emergency Planning has given primary attention to two major stockpile programs in the first half of calendar year 1963--the disposal of surplus materials and the development of new stockpile objectives for conventional war.

### DISPOSAL OF EXCESS MATERIALS

The previous issue of this report to the Congress stated that the Executive Stockpile Committee, under the chairmanship of the Director of the Office of Emergency Planning, had submitted its report on Disposing of Excess Stockpile Materials to the President on January 16, 1963. The Committee's report was approved by the President on January 30. It contained 14 recommendations dealing with disposals of surplus materials. It is within the framework of these recommendations that OEP is now working to develop a long-range disposal program. One of the recommendations was that disposal plans should be based on maximum objectives and that those objectives be predicated on supply-requirements studies that reflect current strategic concepts and up-to-date information about emergency requirements to meet military, war-supporting, and essential civilian needs. Present objectives are based on conventional war assumptions and military, defense-supporting, and essential civilian requirements that may not reflect current needs for such a conflict. In a large part they are based on requirements that are several years old. Furthermore, stockpile objectives for a nuclear war and reconstruction period have not been developed despite much work in this direction.

Among other recommendations, the Executive Stockpile Committee report establishes certain criteria as a basis for developing and implementing disposal plans. In this regard, the President has clearly stated that every effort must be made in the development and implementation of any disposal plan to protect the interests of the producers, processors, and consumers, and the international interests of the United States. The Committee, in conformity with this objective, recommended that the goal of long-term disposals should be the sale of surplus materials in amounts which can be absorbed by regular marketing channels without avoidable loss to the Government and without creating hardships in the domestic or friendly foreign economies, and that plans should be established on an individual commodity basis in amounts and over periods of time which will not unduly interfere with production and employment.

Furthermore, Defense Mobilization Order V-7 (revised and amended) provides that the Director of OEP will authorize the disposal of excess materials whenever possible under the following conditions: (a) avoidance of serious disruption of the usual markets of producers, processors and consumers, (b) avoidance of adverse effects on the international interests of the United States, (c) due regard to the protection of the United States against avoidable loss, (d) avoidance of adverse effects upon domestic employment and labor disputes, and (e) except when materials are channeled to other agencies for their direct use, consultation with the Departments of the Interior, Commerce, State, Agriculture, Defense, Labor, and other governmental agencies concerned, and consultation as appropriate with the industries concerned.

The Office of Emergency Planning is now developing policies and procedures to achieve these objectives. A special interdepartmental task group has been established, under the Interdepartmental Materials Advisory Committee, to prepare guidelines for the development of long-range disposal plans on a commodity-by-commodity basis. This task group, chaired by OEP, consists of representatives from the Departments of State, Defense, the Interior, Agriculture, Commerce, and Labor, the General Services Administration, Small Business Administration, and the Agency for International Development, with other interested agencies participating as observers.

Many issues must be considered in developing any long-range disposal program and must be satisfactorily resolved if undue effects upon various segments of the domestic economy and our international relations are to be avoided. The market difficulties currently being experienced by some domestic minerals industries, the impact of sales on the world market, and the economic reliance of certain countries on one or more of these minerals represent some of the intricate and inter-related problems involved.

Consultation with appropriate industries, interested foreign governments, and Government agencies in the development of major disposal programs can be mutually beneficial and the keystone in the determination of workable policies. As the program evolves, it is planned that such consultations will accompany disposal efforts so that interested groups will have an opportunity to express their views and plan for future actions.

Several aspects of existing legislation require revision to expedite the development of an effective long-range disposal program. The Executive

Stockpile Committee recommended a number of revisions of different statutory provisions and executive policies governing disposals from the National Stockpile, the Defense Production Act Inventory, and Supplemental Stockpile to permit greater flexibility and uniformity in disposal practices and stockpile management. Frequently, the General Services Administration could dispose of surplus stockpile materials advantageously to both the Government and industry due to unusually favorable market conditions, if permitted to do so on shorter notice. Present statutory provisions inhibit this. The Strategic and Critical Materials Stock Piling Act requires a six-months' waiting period (unless waived by Congress) and Congressional approval before disposal of even limited amounts of materials can be made. This applies to all commodities not classified obsolescent as defined in the Statute. Frequently, favorable market conditions have disappeared before the six-months' period has expired or Congressional approval has been obtained. No specific waiting period or Congressional approval is required for disposing of materials from the Defense Production Act Inventory.

#### **SUPPLY-REQUIREMENTS STUDIES— CONVENTIONAL WAR**

The General Instructions and Economic Guidelines for Computing the Supplies and Requirements for Resources for a Conventional War were developed by OEP for planning purposes. They were transmitted to all interested Government agencies and form the basis for the on-going interagency conventional war supply-requirements studies. Under this program, the Office of Oil and Gas, Department of the Interior, has completed and submitted to OEP its supply and requirements studies for petroleum and the Office of Emergency Transportation, Department of Commerce, has its study for transportation resources under way and expects to complete it early in fiscal year 1964.

Supply-requirements studies are also being conducted for all stockpile materials in order to develop up-to-date objectives which will reflect the military, industrial, and other essential needs in the event of a conventional war emergency. As rapidly as new supply-requirements data become available, OEP, after appropriate consultation, will establish new stockpile objectives. It is important that these new objectives be based on thorough studies which can be kept current. As of July 18, 1963, such studies had been completed for conventional war requirements for 12 of the 76 stockpile materials and new objectives had been established with the advice and assistance of the Interdepartmental Materials Advisory Committee. This group, chaired by the Office of Emergency Planning, is composed of representatives from the Departments of State, Defense, the Interior, Agri-

culture, Commerce, and Labor, and the General Services Administration, the Agency for International Development, and the National Aeronautics and Space Administration. Representatives of the Bureau of the Budget, the Atomic Energy Commission, and the Small Business Administration participate as observers.

On the basis of the new supply-requirements estimates, 4 of the 12 new objectives have increased, while 8 have decreased. Those that have increased are: metallurgical grade chromite, mercury, sperm oil, and tin. Those that have decreased are: aluminum, castor oil, copper, feathers and down (waterfowl), lead, nickel, opium, and zinc.

These new objectives reflect a new policy to establish a single objective for each stockpile material. The new objectives will reflect the approximate calculated emergency deficits for the materials for conventional war and do not have any arbitrary adjustments for possibly increased requirements for other types of emergency.

Heretofore, there was a "basic objective" and a "maximum objective" for each material. The basic objectives assumed some continued reliance on foreign sources of supply in an emergency. The maximum objectives completely discounted foreign sources of supply beyond North America and comparably accessible areas. Previously, maximum objectives could not be less than six-months' normal usage of the material by industry in the United States in periods of active demand. The "six-months' rule" has been eliminated in establishing the new calculated conventional war objectives.

#### **SUPPLY-REQUIREMENTS STUDIES— NUCLEAR WAR**

The Office of Emergency Planning is currently making studies to determine stockpile needs to meet the requirements of general nuclear war including reconstruction. Recognizing the urgency of developing some reasonable estimates of post-attack needs, the OEP has initiated a so-called "rough-cut" study aimed at establishing feasible postattack goals for the various segments of the economy. The study is complicated by the fact that the entire economy must be reviewed and the supply-requirements data must be phased into various periods following a nuclear attack and based on inter-industry relationships. It is expected that these new studies will begin to provide a more adequate basis for developing stockpile objectives for nuclear attack and reconstruction requirements during 1964.

When completed, some commodity objectives for nuclear war may differ with those established for conventional war. In such instances, the higher of the two objectives will prevail.

## Summary of Government Inventories of Strategic and Critical Materials

On June 30, 1963, the strategic materials held in all Government inventories amounted to \$8.7 billion at acquisition cost and \$7.4 billion at estimated market value. Of this total, \$5.8 billion at cost was in the National Stockpile, \$1.5 billion in the Defense Production Act inventory, \$1.3 billion in the Supplemental Stockpile, and \$57.4 million in the Commodity Credit Corporation inventory. Of the total materials in Government inventories, \$4.9 billion at cost and \$3.8 billion at estimated market value is considered to be in excess to stockpile objectives. Over 78 percent of the total excess is made up of 12 materials as follows: alu-

minum, metallurgical grade chromite, cobalt, copper, lead, metallurgical grade manganese, molybdenum, nickel, rubber, tin, tungsten, and zinc.

The following table is a summary of the materials carried in each of the Government inventories. It shows the acquisition cost and estimated market value of the materials (1) having stockpile objectives and meeting stockpile specifications, (2) having stockpile objectives and not meeting stockpile specifications, and (3) not having stockpile objectives. The table also shows the amount of materials in each inventory in excess of the stockpile objectives.

### Summary of Government Inventories, June 30, 1963

(Stockpile Objective: Market Value, \$3,649,045,000)

	Total inventory		Excess to stockpile objective	
	Acquisition cost	Market value*	Acquisition cost	Market value*
<b>A. Inventories having stockpile objectives:</b>				
<b>(1) Meeting stockpile specifications:</b>				
National Stockpile.....	\$5,671,910,700	\$5,302,475,400	\$2,356,841,800	\$2,000,447,600
Supplemental Stockpile.....	1,245,964,500	1,099,906,100	1,049,118,700	899,145,700
Defense Production Act.....	1,125,826,200	743,305,700	918,507,100	639,120,400
Commodity Credit Corporation.....	24,903,400	24,939,900	10,751,800	11,684,800
<b>Total.....</b>	<b>8,068,604,800</b>	<b>7,170,627,100</b>	<b>4,335,219,400</b>	<b>3,550,398,500</b>
<b>(2) Not meeting stockpile specifications:</b>				
National Stockpile.....	105,996,300	49,241,800	105,996,300	49,241,800
Supplemental Stockpile.....	7,542,500	2,516,400	7,542,500	2,516,400
Defense Production Act.....	281,351,500	89,728,200	281,351,500	89,728,200
<b>Total.....</b>	<b>394,890,300</b>	<b>141,486,400</b>	<b>394,890,300</b>	<b>141,486,400</b>
<b>B. Inventories not having stockpile objectives:</b>				
National Stockpile.....	38,601,200	28,361,300	38,601,200	28,361,300
Supplemental Stockpile.....	22,602,300	20,808,500	22,602,300	20,808,500
Defense Production Act.....	92,327,200	28,548,000	92,327,200	28,548,000
Commodity Credit Corporation.....	32,485,000	31,571,100	32,485,000	31,571,100
<b>Total.....</b>	<b>186,015,700</b>	<b>109,288,900</b>	<b>186,015,700</b>	<b>109,288,900</b>
<b>C. Summary:</b>				
National Stockpile.....	5,816,508,200	5,380,078,500	2,501,439,300	2,078,050,700
Supplemental Stockpile.....	1,276,109,300	1,123,231,000	1,079,263,500	922,470,600
Defense Production Act.....	1,499,504,900	861,581,900	1,292,185,800	757,396,600
Commodity Credit Corporation.....	57,388,400	56,511,000	43,236,800	43,255,900
<b>Total Inventory.....</b>	<b>8,649,510,800</b>	<b>7,421,402,400</b>	<b>4,916,125,400</b>	<b>3,801,173,800</b>

\*Market values are computed from prices at which similar materials are being traded currently; or, in the absence of current trading, an estimate of the price which would prevail in commercial markets. The values are generally unadjusted for normal premiums and discounts relating to contained qualities. The value does not necessarily reflect the amount that would be realized at time of sale.

Source: General Services Administration.

## STATUS OF STOCKPILE OBJECTIVES

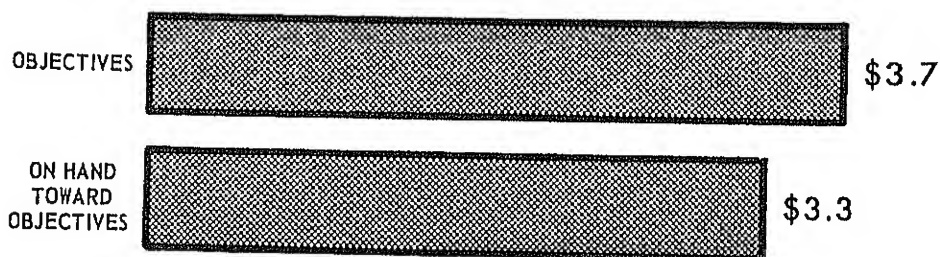
On June 30, 1963, materials of stockpile grade held in the National Stockpile approximately equaled or exceeded the objectives for 54 of the 76 stockpile materials. The inclusion of other Government inventories would increase the objectives approximately equaled or exceeded to 66. The additional materials of stockpile grade on order for all inventories would further increase the objectives approximately equaled or exceeded to 71. Subobjectives for 26 upgraded forms of these basic materials have been assigned within these objectives.

The table which follows shows the estimated market value for the objectives established and the extent to which materials on hand in and on order for the stockpile meet these objectives. The figures do not include other Government inventories or the quantities of materials in the stockpile having stockpile objectives and meeting stockpile specifications which are in excess of objectives (\$2.0 billion), materials in the stockpile for which there are no stockpile objectives (\$28.4 million), and materials in the stockpile which do not meet stockpile specifications (\$49.2 million).

## STATUS OF STOCKPILE OBJECTIVES

AS OF JUNE 30, 1963

(In Billions of Dollars)  
MARKET VALUE



The list of strategic and critical materials for stockpiling is shown in the table below. Achievement of stockpile objectives is shown in this table only if the materials are actually in the National Stockpile. Footnotes indicate when materials in other Government inventories and on order, if

combined with National Stockpile quantities, would complete the stockpile objectives. Also footnoted are those materials for which upgrading objectives in effect as of June 30, 1963, had not been achieved.

*Stockpile Objectives Completed, Strategic and  
Critical Materials (Specification Grade)*

June 30, 1963

Materials	Inventory equals or exceeds objective
Aluminum.....	x
Aluminum Oxide, Fused, Crude.....	x
Antimony.....	
Asbestos, Amosite.....	(2)
Asbestos, Chrysotile.....	
Bauxite, Metal Grade, Jamaica Type.....	(1)
Bauxite, Metal Grade, Surinam Type.....	(1)
Bauxite, Refractory Grade.....	x
Beryl.....	x
Bismuth.....	(1)
Cadmium.....	x
Castor Oil.....	(3) x
Celestite.....	(2)
Chromite, Chemical Grade.....	x
Chromite, Metallurgical Grade.....	x
Chromite, Refractory Grade.....	(2)
Cobalt.....	x
Columbium.....	(3) x
Copper.....	(3) x
Cordage Fibers, Abaca.....	x
Cordage Fibers, Sisal.....	x
Corundum.....	x
Diamond Dies, Small.....	
Diamond, Industrial; Crushing Bort.....	x
Diamond, Industrial; Stones.....	(1)
Feathers and Down, Waterfowl.....	x
Fluorspar, Acid Grade.....	x
Fluorspar, Metallurgical Grade.....	x
Graphite, Natural--Ceylon, Amorphous Lump.....	x
Graphite, Natural--Madagascar, Crystalline.....	x
Graphite, Natural--Other than Ceylon and Madagascar, Crystalline.....	x
Hyoscine.....	x
Iodine.....	(2)
Jewel Bearings.....	
Kyanite-Mullite.....	x
Lead.....	x
Magnesium.....	x
Manganese, Battery Grade, Natural Ore...	x
Manganese, Battery Grade, Synthetic Dioxide.....	x
Manganese, Chemical Grade, Type A Ore...	x
Manganese, Chemical Grade, Type B Ore...	(1)
Manganese, Metallurgical Grade.....	(1) (3)
Mercury.....	x
Mica, Muscovite Block, Stained A/B and Better.....	(1)
Mica, Muscovite Film, First and Second Qualities.....	(1)
Mica, Muscovite Splittings.....	x
Mica, Phlogopite Block.....	x
Mica, Phlogopite Splittings.....	x
Molybdenum.....	x
Nickel.....	x
Opium.....	(3) x
Platinum Group Metals, Iridium.....	x
Platinum Group Metals, Palladium.....	(1)
Platinum Group Metals, Platinum.....	x
Pyrethrum.....	x
Quartz Crystals.....	x

Materials	Inventory equals or exceeds objective
Quinidine.....	x
Rare Earths.....	x
Rubber, Crude, Natural.....	x
Rutile.....	(1)
Sapphire and Ruby.....	
Selenium.....	(2)
Shellac.....	x
Silicon Carbide, Crude.....	(1)
Silk Noils.....	x
Silk, Raw.....	x
Sperm Oil.....	x
Talc, Steatite, Block and Lump.....	x
Tantalum.....	(1) (3)
Tin.....	x
Tungsten.....	(3) x
Vanadium.....	x
Vegetable Tannin Extract, Chestnut.....	x
Vegetable Tannin Extract, Quebracho....	x
Vegetable Tannin Extract, Wattle.....	x
Zinc.....	x

(1)Sufficient quantities are on hand in total Government-owned inventories to complete the objectives.

(2)Total quantities on hand in and on order for all Government-owned inventories are virtually sufficient to complete the objectives.

(3)Although total quantities are equal to the maximum objective, the upgrading program has not been completed.

#### OTHER MATERIALS IN THE NATIONAL STOCKPILE

In addition to specification-grade materials, the National Stockpile contains (1) nonspecification grades of materials for which there are stockpile objectives, and (2) materials that have been removed from the stockpile list and others for which no objectives were established. The amounts of each of these materials on hand as of June 30, 1963 are shown in the following tables.

Most of the nonspecification-grade materials were acquired by transfer of Government-owned surpluses to the stockpile after World War II. Others were accepted as contract termination inventories. Several were of specification grade when acquired but no longer qualify due to higher precision work, changes in industry practices, and other technological advances. Some were purchased early in the stockpile program with a view of upgrading them to usable form under emergency conditions. Materials for which there are no stockpile objectives represent those items which remain in the stockpile, but have been removed from the stockpile list because (1) any previously estimated supply-requirement deficit for a 3-year conventional war has been overcome by increased domestic production, or (2) the material is no longer considered essential for defense purposes. This latter determination has been based on shifts in weapons systems, development of new materials, and technological improvements.

*National Stockpile Inventories,\*  
Nonspecification Grades of Materials  
for Which There Are Stockpile Objectives*

As of June 30, 1963

Material	Unit	Quantity
Aluminum.....	ST	1,787
Bismuth.....	Lb.	36,580
Cadmium.....	Lb.	1,028,583
Celestite.....	SDT	28,816
Chromite, Metallurgical Grade...	SDT	190
Columbium.....	Lb.	1,350,415
Diamond Dies, Small.....	Pc.	8,371
Fluorspar, Acid Grade.....	SDT	4,960
Graphite, Madagascar, Crystalline.....	ST	1,569
Graphite, Other than Ceylon and Madagascar, Crystalline.....	ST	672
Jewel Bearings.....	Pc.	14,715,973
Magnesium.....	ST	1,971
Manganese, Metallurgical Grade..	SDT	621,304
Mica, Muscovite, Block, Stained A/B and Better.....	Lb.	347,600
Mica, Muscovite Film, 1st and 2d Qualities.....	Lb.	23,674
Mica, Phlogopite Block.....	Lb.	206,520
Opium, Alkaloid and Salts.....	Lb.	2,180
Platinum Group Metals, Platinum	Troz.	33
Quartz Crystals.....	Lb.	795,311
Talc, Steatite Block and Lump...	ST	40
Tantalum.....	Lb.	1,864,183
Tungsten.....	Lb.	16,229,734

\*Quantities may be shown on this table and also on the disposal table when sales commitments have been made, but the material has not moved out of inventory.

Source of Data: General Services Administration.

*National Stockpile Inventories,\* Materials for  
Which There Are No Stockpile Objectives*

As of June 30, 1963

Material	Unit	Quantity
Asbestos, Crocidolite (Soft)....	ST	1,567
Coconut Oil.....	Lb.	88,639,435
Diamond Dies, Other than Small..	Pc.	355
Diamond Tools.....	Pc.	64,178
Mica, Muscovite Block, Stained B and Lower.....	Lb.	4,612,712
Mica, Muscovite Film, 3d Quality	Lb.	513,181
Palm Oil.....	Lb.	25,545,593
Platinum Group Metals, Rhodium..	Troz.	618
Quinine.....	Oz.	5,727,732
Silk Waste.....	Lb.	260,877
Talc, Steatite, Ground.....	ST	3,901
Zirconium Ore, Baddeleyite.....	SDT	16,533
Zirconium Ore, Zircon.....	SDT	3,416

\*Quantities may be shown on this table and also on the disposal table when sales commitments have been made, but the material has not moved out of inventory.

Source of Data: General Services Administration.

# National Stockpile Activities

## PROCUREMENT AND UPGRADING

The Strategic Stockpile Procurement Directive for fiscal year 1963 provided for the cash purchase of only one material, jewel bearings, and the acquisition through barter of antimony, chrysotile asbestos, celestite, refractory grade chromite, small diamond dies, iodine, and selenium. The Directive also provided for the upgrading of materials in the stockpile to columbium metal, columbium carbide powder, oxygen-free high conductivity copper, tantalum metal, and tantalum carbide powder. The processing of sebacic acid from castor oil was originally included but subsequently cancelled.

The General Services Administration entered into two new upgrading contracts involving materials in the National Stockpile during the reporting period--the conversion of 6,000 short tons of electrolytic copper to oxygen-free high conductivity copper and the conversion of 469,000 pounds of columbium and tantalum bearing materials to columbium-tantalum metal and carbide powders. Payment for the processing and transportation costs of these materials will be made with surplus tungsten concentrates and ores, ferronickel, and copper from the DPA inventory.

Deliveries have continued during the January-June period against the previously executed upgrading contracts for oxygen-free copper, columbium and tantalum carbide powders, and sebacic acid. Balances remain to be delivered against the oxygen-free copper and recently negotiated contracts for the columbium and tantalum metals and powders.

During the fiscal year 1963, the value of strategic materials delivered under barter transactions amounted to \$84.7 million, of which \$33.3 million was delivered in the January-June 1963 period. This compares with deliveries of \$168.3 million during fiscal year 1962 and \$73.6 million for the January-June 1962 period.

During the January-June 1963 period, the General Services Administration amended the existing contract with the Bulova Watch Company covering the production of jewel bearings for the stockpile and extended the contract for a two-month period rather than a full year as originally contemplated because of the company's request for a resolution of certain audit and other matters prior to a full year's extension. The lease under which Bulova utilizes the plant was extended for this same period.

## DISPOSAL PROGRAMS

During the January-June period, OEP authorized seven new disposal programs developed by GSA with the concurrence of the interested agencies in accordance with the provisions of Defense Mobilization Order V-7, revised and amended. These disposal programs included titanium sponge, copper (2), aluminum, palladium sponge, waterfowl feathers and down, and tungsten. A brief summary of these actions follows:

*February 6--Titanium Sponge.*--10,000 short tons were authorized to be released from DPA inventory for the direct use of Government agencies. To date none of this material has been used by the agencies.

*February 15--Copper.*--1,600 short tons were authorized from the DPA inventory as payment-in-kind for upgrading 6,000 short tons of copper to oxygen-free copper. Releases are now being made to the contractor.

*March 27--Copper.*--10,000 short tons were authorized from the DPA inventory for the direct use of Government agencies. As of June 30, 1963, releases totaling 5,210 short tons of copper had been made to Government agencies, primarily to the Department of Defense and to the United States Mint for coinage purposes.

*May 1--Aluminum.*--135,000 short tons were authorized to be released from the DPA inventory in at least four offerings spaced approximately six months apart prior to June 30, 1965. This disposal plan is the result of many months of negotiation with industry representatives and Government agencies. The plan calls for approximately 25,000 short tons to be set aside for small business firms and the remaining 110,000 short tons to be offered on the basis of unrestricted competition. The first offering in June provided a set-aside of 6,250 short tons for small business and 27,500 short tons for unrestricted competition. Awards totaling 24,548 short tons were made to the unrestricted bidders at approximately the prevailing market price but no acceptable bids were received from small business firms on the 6,250 short ton set-aside offer. The next offering is scheduled for December 1963. As a result of this disposal plan, OEP cancelled the unsold portion of a prior authorization of 20,000 short tons of DPA aluminum for exclusive use in foreign aid programs and rescinded an authorization for the disposal of 5,330 short tons of Grade "H" aluminum in the DPA inventory.



*May 3—Palladium Sponge.*—Disposal was authorized for 7,884 troy ounces representing the entire quantity in the DPA inventory which is excess to stockpile needs. To date, no releases have been made.

*May 21—Feathers and Down (Waterfowl).*—5,800,000 pounds representing the total quantity in the National Stockpile in excess of the newly established objective were authorized for direct Government use. This sales plan requires the approval of the Congress and Notice of the proposed disposal was published in the Federal Register on June 25, 1963. These materials are urgently needed by the Department of Defense for the procurement of sleeping bags and the Congress has been requested to waive the six-month waiting period. Due to conditions prevailing in the industry, sales will be limited for the present to Government use.

*June 13—Tungsten.*—550 short tons of tungsten ores and concentrates were authorized from the DPA inventory as payment-in-kind for upgrading certain stockpile materials to columbium and tantalum metal and carbide powders.

The above plans were either published in the Federal Register or otherwise publicly announced during the period. Also announced was an amendment to the disposal plan for rutile chlorinator charge material covering an additional quantity of 3,500 short tons in the DPA inventory.

During late 1962 and early 1963 the supply of cadmium from commercial sources became increasingly short and many domestic users, large and small, were forced to curtail production. As conditions grew worse, consumers made strong appeals to their Congressmen and other Government agencies for help, requesting that the Government release some of the excess cadmium from

the National Stockpile. OEP authorized GSA to develop a plan for the sale of 2,000,000 pounds from the stockpile. This was submitted to the Congress in October 1962 with the request that the six-month waiting period be waived. The Congress approved this action on April 9, 1963.

During the period, OEP requested GSA to develop draft plans for the disposal of 900,000 short tons of low grade chromite in the DPA inventory stored at Nye, Montana, for unrestricted sale and 50,000 tons of lead and 10,000 tons of zinc from the National Stockpile for direct Government use. These disposal plans are still pending due to nonconcurrence on the part of certain agencies. A plan was also requested for the disposal of 250 short tons of subspecification grade manganese ore from the National Stockpile stored at Philipsburg, Montana, which was authorized in August 1963.

As of June 30, 1963, cumulative sales commitments of surplus materials negotiated by GSA totaled \$560.9 million at market prices and covered the disposal of 72 materials. Of this total, 55 materials were from the National Stockpile, 16 from the DPA inventory, and one (tin) from the Federal Facilities Corporation inventory. During fiscal year 1963, sales commitments amounted to \$110.4 million. During January-June 1963, disposal commitments totaled \$78.9 million in gross sales value. Of this amount, disposals from the National Stockpile totaled \$51.5 million, and disposals of materials from the Defense Production Act inventory accounted for \$27.4 million. Major disposals during this period were: rubber, \$24.0 million; aluminum, \$11.0 million; tin, \$9.5 million; copper, \$9.8 million; molybdenum, \$7.3 million; coconut oil, \$6.0 million; and nickel, \$5.0 million. A list of the materials sold during the period is shown on the following table.

# Disposal of Strategic Materials

January-June 1963

Material	Unit	Sales Commitments	
		Quantity	Sales value
NATIONAL STOCKPILE INVENTORY:			
Bronze, silicon and copper scrap.....	ST	74	\$38,058
Cadmium.....	Lb.	300,000	750,849
Castor oil.....	Lb.	14,687,810	2,067,848
Coconut oil.....	Lb.	54,204,719	5,968,642
Copper, beryllium scrap.....	ST	11	14,266
Ferrovandium.....	Lb.	65,447	50,850
Magnesium ingots.....	ST	1,195	702,903
Molybdenite.....	Lb.	5,018,617	7,264,892
Nickel oxide powder.....	Lb.	*15,761	*12,733
Palm oil.....	Lb.	6,018,683	423,827
Quartz crystals, crude.....	Lb.	45,812	48,595
Quinidine.....	Oz.	99,949	68,202
Rubber.....	LT	41,019	23,949,098
Shellac.....	Lb.	523,388	86,494
Silk noils.....	Lb.	66,743	15,008
Silk waste.....	Lb.	781,142	379,892
Tin.....	LT	3,739	9,468,832
Vegetable tannin extract, chestnut.....	LT	125	33,040
Vegetable tannin extract, quebracho.....	LT	525	88,190
Vegetable tannin extract, wattle.....	LT	600	94,080
Zirconium ores, zircon.....	SDT	290	8,350
Total National Stockpile.....	.....	.....	\$51,534,649
DEFENSE PRODUCTION ACT INVENTORY:			
Aluminum.....	ST	24,674	\$11,045,826
Cobalt.....	Lb.	1,000	1,500
Copper.....	ST	15,994	9,844,027
Cryolite (synthetic).....	ST	2,235	284,550
Lead.....	ST	2,220	451,750
Nickel.....	Lb.	6,787,824	4,993,004
Rutile chlorinator charge.....	ST	7,000	91,840
Titanium sponge (140-170 Brinell).....	ST	67	157,306
Tungsten.....	STU	32,800	536,086
Total DPA.....	.....	.....	\$27,405,889
Grand total.....	.....	.....	\$78,940,538

\*Disposal January-June 1963 after adjustment of July-December 1962 data due to cancellation of commitment.

Source: General Services Administration Reports DM-80. Data represents net difference between December 31, 1962, and June 30, 1963, reports.

## Activities of the General Services Administration Relating to Strategic and Critical Materials

The General Services Administration is charged with the general operating responsibility, under policies set forth by OEP, for stockpile management including (1) the purchasing and making of commitments to purchase, transfer, rotate, and upgrade metals and minerals, and other materials for Government use and resale for defense purposes; (2) the expansion of productive capacity through supply contracts, including the installation of Government-owned equipment, such as machine tools, in privately-owned facilities; and (3) the provision for the storage, maintenance, and disposal of all strategic materials held in Government inventories.

### STORAGE AND MAINTENANCE

On June 30, 1963, strategic and critical materials were stored at 165 locations as follows:

Type of facility	As of 6/30/63	Net change in last 6 months
Military depots.....	52	-2
GSA depots.....	24	0
Other Government-owned sites....	10	0
Industrial plant sites.....	39	0
Leased commercial sites.....	16	0
Commercial warehouses.....	24	-3
<b>Total.....</b>	<b>165</b>	<b>-5</b>

Approximately 51.5 million tons of materials were stored at these facilities. About 1.1 million tons of materials were received into storage during the reporting period. Approximately 98% of the receipts in the last fiscal year originated from Commodity Credit Corporation barter contracts.

One of the most significant accomplishments in the storage area was the progress made in reducing commercial storage of strategic materials. A total of 29,050 tons of rubber, cordage fiber, and cryolite were removed from commercial warehouses, of which 21,268 tons were relocated to Government depots, and the remaining 7,782 tons were sold under disposal sales programs. These actions have completely evacuated three commercial warehouses and reduced the inventory in eight others reducing the annual commercial storage charges by \$222,000. In addition to these savings, further reductions of approximately \$70,828 annually will be realized due to the renegotiation of rates under existing storage contracts.

In June of this year, the GSA-DMS Harahan Depot, Harahan, Louisiana, was completely evacuated of all strategic and critical materials by relocation of these materials to other GSA depots. This action not only improves the strategic disposal posture of these materials, but will also result in a further potential saving of \$95,000 per year.

As the Louisville Medical Depot, Louisville, Kentucky, was inactivated by the Army on March 31, 1963, all strategic and critical materials stored at that facility were relocated to other Government depots. This action obviated the necessity of establishing a GSA operation (supply support, guard and fire protection, maintenance, and utilities) at an estimated annual cost of an additional \$200,000 and at the same time improved the strategic location of these materials.

On June 1, 1963, GSA assumed full custodial and maintenance operations of a portion of the Naval Supply Depot, Clearfield, Utah, which was declared surplus by the Navy. The stockpile is utilizing 563,000 square feet of warehouse and open space for the storage of 104,000 tons of material at this facility.

The following quantities of stockpile materials were strategically dispersed from existing locations in accordance with OEP directives:

	Quantity
Molybdenic oxide.....	3,407,500 pounds
Ferrocolumbium.....	467,693 pounds
Mica, phlogopite block....	10,990 pounds
Hyoscine.....	525 ounces
Pyrethrum.....	52,600 pounds
Silk noils.....	628,905 pounds
Shellac.....	1,331,367 pounds

A start was made on the plan pointing to the eventual evacuation of the warehouse at the GSA-DMS Buffalo Depot. Contracts were made covering site preparation, relocating bulk ores and galvanized drummed materials from the warehouse to open storage, and handling of materials shipped out of the facility. In addition, 4,100 tons of materials were moved to another GSA depot and 1,900 tons of rubber and tannin extract were shipped from Buffalo for disposal sales. Depending on the availability of funds, this plan will take about two years to accomplish and will result in annual savings of \$253,000 in recurring operating costs, as well as avoiding the necessity for a major roof rehabilitation at a cost of \$1,440,000.

New preservation and maintenance projects totaling 127 were authorized during the period and 73 previously authorized projects were completed. Major authorized projects included major roof rehabilitations at the GSA depots in Gadsden, Alabama, and Bethlehem, Pennsylvania; painting of the tank farms at Hammond, Indiana, and Mechanicsburg, Pennsylvania; open site preparation at the GSA Buffalo Depot; repackaging of rare earth at two GSA depots, and repackaging supplies

of iodine currently in deteriorating kegs at two, GSA depots.

#### **PURCHASE SPECIFICATIONS**

During the January-June 1963 period, revised specifications approved by OEP were issued on amosite asbestos, chrysotile asbestos, columbium carbide powder, tantalum carbide powder, and iodine.

## Notes on Strategic and Critical Materials

### BRONZE, SILICON AND COPPER SCRAP

Between January and June, 84 short tons of bronze, silicon and copper scrap were disposed of by public sale.

### CADMIUM

On April 9, 1963, the Congress waived the six-month waiting period and authorized the immediate disposal of the 2,000,000 pounds of cadmium from the National Stockpile. The initial offerings totaling 300,000 pounds were sold under two sales on April 30 and May 7, 1963. The plan specified that additional quantities would be offered for sale at periodic intervals of not less than 60 days. The third offering of July 7 was for an additional 750,000 pounds which was substantially over-subscribed in all except one category due to the short supply of cadmium for several months. To meet general market conditions, the offering was subdivided into four separate solicitations, as follows: set-aside for DO rated orders—300,000 pounds; set-aside for small business—150,000 pounds; set-aside for domestic consumers—150,000 pounds; and unrestricted sales basis—150,000 pounds. All sales of offerings were restricted to domestic consumption. Subsequent to June 30, GSA announced that the remaining 1,076,100 pounds of the 2,000,000 pounds of cadmium authorized for disposal would be offered for sale on September 6, divided equally into four subdivisions as indicated above.

### CASTOR OIL

Offerings of approximately 5,000,000 pounds of castor oil have been made on a sealed bid basis at intervals of 60 days under the program for the disposal of 155,676,000 pounds of castor oil. To date, six sales have been made with a total of 29,100,120 pounds sold for an overall sales value of \$4,156,816. Of the total, 14,687,800 pounds were sold during the period January 1-June 30, 1963, for a sales value of \$2,067,848.

On June 17, 1963, based on new supply-requirements studies, OEP reduced the objective for castor oil to 22,000,000 pounds. Within this objective, the subobjective for sebacic acid was reduced to 5,000,000 pounds, equivalent to approximately 12,500,000 pounds of castor oil and the contract for this quantity is nearly completed.

### COCONUT OIL

Coconut oil was removed from the stockpiling list on April 9, 1959. Pursuant to the Federal Register Notice of Sale of 265,000,000 pounds on June 23, 1959, offerings of approximately 14,000,000 pounds have been made on a telegraphic bid basis every six weeks, beginning January 3, 1960. To date, 227,675,130 pounds have been sold for a total sales value of \$27,116,988, or an average unit price of \$0.1191 per pound. Of this total quantity, 54,204,719 pounds were sold during this reporting period for a sales value of \$5,968,642. There remains for disposal 37,324,870 pounds.

### COLUMBIUM-TANTALUM

The Office of Emergency Planning, on November 16, 1962, directed the General Services Administration to procure columbium and tantalum metals and columbium and tantalum carbide powders for the National Stockpile by the conversion of columbium and tantalum bearing materials. GSA was also authorized to convert the total stockpile inventory of potassium tantalum fluoride and, in addition, designate a quantity of processed Geomines tin smelter slags for such conversion. Following a period of negotiations, contracts were executed on June 29, 1963, with a contractor whose plant is located in a surplus labor area. Under this contract, DPA materials will be used as payment-in-kind for all conversion services. These materials consist partly of tungsten concentrates stored at Buffalo, New York, and scheduled for relocation, and partly from depots where the tungsten is scheduled for repacking, thus resulting in potential savings to the Government. The balance of payment will be made in ferronickel presently stored at Riddle, Oregon.

### COPPER

During the report period, 11,897 short tons of copper were sold to other Government agencies, primarily the United States Mint and the Department of Defense, under current authorizations. In addition, 2,997 short tons were committed as payment-in-kind for the upgrading of copper into OFHC copper, certified grade.

### CORDAGE FIBERS

There was no rotation of cordage fibers as funds were not appropriated for this purpose. About 15 million pounds of fiber, however, were sold during

the first half of fiscal year 1963. This disposal reduced the inventory to objective levels. A restudy of the fiber objectives and fiber rotation requirements is being made. Revised objectives, rotation cycles, and/or disposal plans are expected to result from this study early in fiscal year 1964.

#### *CRYOLITE, SYNTHETIC*

GSA continued to attempt to interest aluminum producers and others in the balance of this material authorized for disposal amounting to 24,223 tons. About 2,200 short tons were sold during this reporting period.

#### *DIAMOND DIES*

Pursuant to the fiscal year 1963 Procurement Directive, certain quantities of small diamond dies needed to meet the stockpile objective will be procured through barter.

#### *IODINE*

The 1963 Procurement Directive included 350,000 pounds of iodine to be obtained through barter transactions and a contract has been entered into for this quantity at a total value of \$328,090.

#### *JEWEL BEARINGS*

The existing stockpile contract with the Bulova Watch Company, covering the production of jewel bearings at the Turtle Mountain Plant in South Dakota, was amended and extended for a two-month period and the lease under which Bulova utilizes the plant was extended for this same period. The supplemental budget for fiscal year 1963, approved by the Congress and the President, provided funds in the amount of \$1,100,000 for the expansion and modernization of the Turtle Mountain Plant. GSA's Public Buildings Service will initiate action on the acquisition of the real property and the construction of the new building. The Defense Materials Service is making a preliminary technical review of the equipment requirements suggested by the Bulova Watch Company for potential acquisition from foreign sources by the Federal Supply Service on a Government-to-Government basis. No approach will be made to the Swiss Government until such time as technical reviews have been completed in conjunction with the Bulova Watch Company, the Frankfurt Arsenal, and other interested agency and industry representatives.

#### *LEAD*

During the period, 2,220 short tons of lead were disposed of through sales to other Government agencies, primarily the U.S. Navy for use as ballast in submarines.

#### *MAGNESIUM*

About 1,150 short tons of magnesium were sold by public sale and 45 short tons were sold to other Government agencies.

#### *MANGANESE*

Approximately 230,000 tons of manganese oxide and mixed oxide-carbonate ores stored at Butte, Montana, were advertised for bids. No responses were received. GSA plans to reoffer this material.

#### *MOLYBDENUM*

The Congress in June 1962 approved the proposed disposal of 5,000,000 pounds of excess molybdenum from the National Stockpile. During the period, three invitations to bid were issued and six contracts resulted, all above the current market price, for 5,018,617 pounds at \$7,264,892.

#### *NICKEL*

During the report period, 1,710,000 pounds of nickel contained in the ferronickel held in the DPA inventory were committed for use as part payment for the upgrading of columbium-tantalum bearing materials to tantalum metal and metal powder and columbium metal and metal powder. In addition, 4,307,824 pounds of Nicaro nickel sinter were sold from the DPA inventory to commercial customers. About 767,900 pounds of nickel were transferred from the DPA inventory to other Government agencies, primarily to the Army and the Bureau of the Mint for coinage purposes. During the period, 15,761 pounds of nickel oxide powder were sold out of the National Stockpile.

#### *PALM OIL*

Since the publication of the Notice of Sale in the Federal Register on May 28, 1960, five offerings approximating 5 to 6 million pounds each have been made at six-month intervals. To date, a total of 15,024,455 pounds has been sold for a total sales value of \$1,120,891, or an average unit price of \$0.0746 per pound. Of this total figure, 6,018,683 pounds were sold during the period January 1-June 30, 1963, for a sales value of \$423,827.

#### *QUARTZ CRYSTALS*

Disposal sales of approximately 45,812 pounds of this material were made from the National Stockpile for \$48,595.

#### *QUINIDINE*

A notice of the proposed disposal of approximately 453,000 ounces of quinidine was published in the Federal Register on November 24, 1960. Offerings of not more than 100,000 ounces have

been made at six-month intervals. To date, 329,938 ounces have been sold for a total contract value of \$226,710, or an average price per ounce of \$0.6871. During the period January 1-June 30, 1963, 99,949 ounces were sold for \$68,202.

#### **RUBBER**

From January through June 1963, 41,019 long tons of surplus rubber were sold at a contract value of \$23,949,098. Prior to July 1, 1962, GSA had been authorized to utilize excess stockpile rubber to satisfy certain requirements of the AID and DOD programs. As a result of such authorizations, GSA's disposal may now be classified as a six-point program. First is the AID tire and tube program which requires all suppliers of these items to AID recipient countries to purchase rubber from the stockpile in a dollar amount equal to 100% of the dollar amount of any order received for tires and tubes. This part of the program has resulted in the utilization of 2,112 long tons of rubber, which is included in the monthly quantity GSA is permitted to sell. Secondly, GSA is permitted to sell a quantity of rubber in excess of the monthly limit equal to the natural rubber content of the tires and tubes supplied pursuant to the AID program. This has resulted in the sale of 528 long tons. Thirdly, there is the direct AID program under which GSA becomes the sole source of supply of natural rubber, Grades 1, 2 and 3 RSS, to be financed with AID funds. This is more commonly referred to as the "substitute for dollars" program. Under this program, GSA is required to sell its rubber to importers in the various AID recipient countries on a price basis competitive with the usual world market price that such importers would normally pay in a free market. This phase of the program has accounted for 4,676 long tons. The fourth category is the substitution of natural for synthetic rubber in certain DOD requirements for military ground tires and retread material. In this case, GSA transfers the required amount of natural rubber to DOD, pursuant to DMS Regulation 2, at the same price that DOD would otherwise be required to pay for the synthetic rubber being replaced. This has accounted for 480 long tons to date. The fifth part is the DOD Military Assistance Program. In this case, GSA transfers the required amount of rubber to DOD, pursuant to DMS Regulation 2, at the same price that DOD would be required to pay for such rubber on the open market. This operation accounted for 508 long tons during the period. The sixth and basic part of the program is the 5,000 long tons permissive sales per month, including the basic sales against the tire and tube program listed as the first item in the six-point program. A total of 33,242 long tons was utilized in this basic operation during the January-June 1963 period. During January 1963, when the longshoremen's strike threatened several manufacturers with shutdowns due to rubber shortage, OEP authorized the ad-

ditional release of 3,242 long tons of rubber. The total sales from the beginning of the program through June 30, 1963, are 227,655 long tons with a contract value of \$162,556,499.

#### **RUTILE**

Approximately 7,000 short tons of rutile chlorinator charge material remaining at the former Cramet titanium facility at Chattanooga were sold for \$91,840.

#### **SHELLAC**

Notice of Sale of approximately 10,655,518 pounds of shellac, in excess of the stockpile objective, was published in the Federal Register on October 28, 1961. Invitations on a sealed bid basis have been issued on approximately 500,000 pounds at 90 day intervals since that time. A total of \$1,068,132 pounds has been sold for a total contract value of \$176,776, or an average price per pound of \$0.1655. Of that quantity, 523,388 pounds were sold during this reporting period. The next bid opening is scheduled for September 17.

#### **SILK-WASTE**

The plan approved for the disposal of silk waste was first published in the Federal Register August 24, 1960, and in accordance with that plan 14 sales were held at varying intervals. The final sale was at auction in New York City on May 14, 1963, when the remaining silk waste in the stockpile was sold. These several sales in the aggregate have resulted in the disposal of over 2,900,000 pounds of silk waste from the stockpile, at an average price of 40.9 cents per pound, returning \$1,195,168 to the United States Treasury.

#### **TIN**

On June 21, 1962, the Congress approved the disposal of 50,000 long tons of tin from the stockpile. As of June 30, 1963, sales commitments amounted to 5,140 long tons, valued at \$12.9 million. Of this total, approximately 3,739 long tons were disposed of during the January-June period. Prior to June 1963, the rate of offering was limited to 200 long tons weekly. For the quarter July through September, the rate was increased to 400 long tons weekly to allow the Government more flexibility in meeting changing market conditions. At the end of the September period, GSA plans to decide whether to continue at the 400 weekly sales rate or revert to the 200 long ton schedule.

#### **TITANIUM SPONGE**

During the report period, 67 short tons of titanium sponge were sold by public sale.

#### **TUNGSTEN**

Approximately 25,000 short ton units of tungsten were committed as partial payment-in-kind for

services and other costs in connection with the conversion of potassium tantalum fluoride and a quantity of processed Geomines tin smelter slags to columbium and tantalum metal powders and columbium and tantalum carbide powders.

#### *VANADIUM*

About 65,447 gross pounds of open hearth grade ferrovanadium from the National Stockpile were sold for \$50,850.

#### *VEGETABLE TANNINS*

##### *CHESTNUT, QUEBRACHO, AND WATTLE*

Disposal of 12,245 long tons of Chestnut Tannin Extract was approved by the Congress on June 21, 1962. The six months' waiting period was waived on 4,000 long tons of this quantity by Public Law 87-720. Two offerings of approximately 1,000 long tons have been made on a sealed bid basis, one in January and one in May 1963. To date, only

25 long tons have been sold, for a sales value of \$5,040. Disposal of a separate quantity of 650 long tons of Chestnut Tannin Extract, not included in that mentioned above, was also approved by the Congress on June 21, 1962. This latter quantity is being sold to firms holding Government contracts requiring tannin, such as Army combat boots and shoes. Total sales of 100 long tons have been made during the period January 1-June 30, 1963, for a sales value of \$18,742.

Disposal of 2,100 long tons of Quebracho Tannin Extract was approved by the Congress on June 21, 1962. A total of 764 long tons has been sold to firms holding Government contracts for a sales value of \$128,352. Of this quantity, 525 long tons were sold during this report period, for a contract value of \$88,190.

Disposal of 650 long tons of Wattle Tannin Extract was also approved by the Congress on June 21, 1962. Disposal of the 650 long tons was completed at a sales value of \$101,920, of which 600 long tons were sold during the January 1-June 30, 1963, period.



# Activities of the Department of Commerce Relating to Strategic and Critical Materials

The Department of Commerce participates in activities leading to OEP determinations of which materials are strategic and critical and the quantities and qualities which shall be stockpiled.

During the January-June 1963 period, the Business and Defense Services Administration, Department of Commerce, prepared and submitted to OEP 26 estimates of essential civilian and war-supporting requirements studies, recommendations regarding 12 proposed disposal programs, 14 material specifications, and 10 storage procedures, as follows:

## ESTIMATES OF ESSENTIAL CIVILIAN AND WAR-SUPPORTING REQUIREMENTS

The Business and Defense Services Administration has been delegated the responsibility for preparing estimates of essential civilian and war-supporting requirements. Preparation of such estimates requires an examination of historical consumption, evaluation of industrial trends and technological progress, an allowance for feasible substitution and a projection of usage under wartime conditions. On occasion industry surveys are necessary to determine the accuracy of factors used in the estimates. The following studies of items being stockpiled or considered for stockpiling were completed during the reporting period.

Aluminum	Graphite, Ceylon
Bauxite, refractory grade	Graphite, Madagascar
Beryl	Graphite, other
Chromite, metallurgical grade	Jewel bearings
Columbium	Lead
Copper	Magnesium
Cordage fibers, abaca	Mercury
Cordage fibers, sisal	Molybdenum
Feathers and down	Nickel
Fluorspar, acid grade	Quartz crystals
Fluorspar, ceramic grade	Quinidine
Fluorspar, metallurgical grade	Shellac
	Sperm oil
	Zinc

## RECOMMENDATIONS REGARDING DISPOSAL PROGRAMS

In accordance with the policies established by Mobilization Order V-7, revised and proposed disposal sales plans authorized and developed by GSA are submitted to review and concurrence.

Based on evaluation of the markets and consultation with industry, as appropriate, recommendations regarding disposal programs for the following were submitted to OEP or GSA:

Aluminum	Rubber (additional)
Cadmium	Tin
Chromite, subspecification	Tungsten concentrates (for upgrading purposes)
Copper (for upgrading purposes)	Tungsten trioxide
Feathers and down	Zinc
Lead	
Palladium	

## RECOMMENDATIONS ON PURCHASE AND ACCEPTANCE SPECIFICATIONS AND SPECIAL INSTRUCTIONS

Materials in the National Stockpile must be in forms which not only are suitable for long-term storage but provide for efficient usage in a mobilization period. Reviews of stockpile purchase and acceptance specifications are made from time to time; generally in consultation with industry, to assure that these aims are accomplished. Recommendations on specifications for the following were submitted to OEP:

Antimony (two submissions)	Iodine
Asbestos, amosite	Ferromanganese, medium and low carbon
Asbestos, chrysotile (2nd revision)	Molybdenum
Chrome ore	Sebacic acid
Ferrochrome, high carbon	Tantalum, capacitor grade (2nd revision)
Ferrochrome, low carbon	Tantalum minerals (2nd revision)
Columbium, commercial grade (2nd revision)	
Columbium minerals (2nd revision)	

## STORAGE PROCEDURES

To minimize possibilities of deterioration and to assure ready availability as needed in wartime, storage procedures for individual materials are reviewed periodically. Recommendations to GSA were developed for the following items, using industry advice, as necessary:

Abaca (rotational procedures)	Tungsten metal powder (carbon reduced)
Abrasive grains	Tungsten metal powder (hydrogen reduced)
Beryl	Tungsten carbide powder
Columbium carbide powder	Ferrotungsten
Tantalum carbide powder	
	Vegetable tannins

## Activities of the Department of Agriculture Relating to Strategic and Critical Materials

The Department of Agriculture has the responsibility for emergency preparedness programs covering food resources including the production, processing, storage, and distribution of food through the wholesale level. The Department conducts supply-requirements studies in order to identify problem areas and develop necessary programs for the maintenance of an adequate mobilization base. The Department acts in an advisory capacity to OEP in the determination of agricultural commodities required for stockpiling and the establishment of such objectives. Under the broad authority of the Agricultural Trade Development and Assistance Act of 1954 (Public Law 480, 83rd Congress), the Department administers the barter programs whereby surplus agricultural commodities are exchanged for strategic and other materials when such exchange reduces the risk of loss through deterioration and entails less storage costs. Strategic materials in excess of stockpile objectives are only acquired under conditions advantageous to the U.S. and principally where they will take the place of foreign currency sales or will advance U.S. foreign policy objectives.

### EXPANSION OF DOMESTIC SOURCES

Production and engineering research projects were continued to develop domestic capability to produce strategic or critical agricultural products of foreign origin or substitutes for these items.

**Tanning Materials.**—All phases of production research on canaigre were discontinued in April 1963. The research has resulted in a germ plasm bank of selected high-tannin breeding stock, available for future use if needed. The canaigre plots are located in the Tonto National Forest in Arizona.

**Chemicals.**—While no research is currently under way on these items, the Department of Agriculture continues to store seed stocks of *Atropa belladonna*, *Digitalis purpurea*, and *Papaver somniferum* (opium poppy). Seed stocks are large enough to insure minimum emergency production. Each year one or more lines or varieties of opium poppy seed are increased. This will be continued until eight selected lines are in storage in 50-pound lots.

**Oils.**—Data from castorbean cultural and breeding experiments are being evaluated. Final data will show advances in breeding for increased yield,

improved oil content, and resistance to capsule drop and leaf spot.

The United States is in a much stronger position should castorbean seed be needed for more extensive plantings. Experimental plantings for 1963 doubled last year's acreage. The majority of the plantings represent improved varieties resulting from the cooperative USDA-State Experiment Station program.

Interest has increased in castorbean production in the Texas high plains. Growers reported yields of up to 3,000 pounds per acre in 1962. Engineering continued on the castorbean harvester-combine for handling the dwarf varieties at higher moisture levels.

### Cordage Fibers

**Kenaf.**—Experiments to breed nematode-resistant kenaf hybrids have been only partially successful; however, new hybrid combinations offer some promise. Experimental kenaf production in 1962 was reduced by nematode infestation and unseasonable growing conditions. Prior to 1963 plantings, fields were treated with nematicides. Locations were selected which could be irrigated in dry weather and which would not be affected adversely by rains at harvest time.

A commercial paper-producing company will plant 15 acres of kenaf for pulp in 1963. Results of 1962 research stimulated the company's interest in kenaf as a source of pulp.

The kenaf harvester for the Sudan has been completed and shipped by a commercial company. Interest in kenaf has been shown by South and Central American countries. Representatives of such countries have visited the laboratory frequently.

**Sansevieria.**—Two new sansevieria hybrids, H52-51 and H-52-156, have produced significantly greater fiber yields than Florida H-13. Experiments have demonstrated the importance of calcium for maximum growth of sansevieria. Data collection and age-of-harvest studies on sansevieria have continued. Field trials have not yet been conducted on the harvester-decorticator.

Reports are encouraging on new sansevieria varieties grown in Central America. A company with abaca interests in the Philippines is investigating commercial production of sansevieria in that area.

## BARTER ACTIVITIES

During January-June 1963, the Commodity Credit Corporation negotiated 27 barter contracts for strategic and other materials valued at approximately \$28.6 million. Of this amount \$13.9 million represented contracts for strategic materials (\$11.4 million involved bilateral exports of wheat to Brazil and \$2.5 million represents exports to eligible countries under present barter rules). The remaining \$14.7 million was for offshore procurement for the Department of Defense. By comparison, 11 contracts valued at approximately \$9.8 million were negotiated during the July-December 1962 period; 25 contracts valued at \$67.6 million were negotiated during the January-June 1962 period.

Agricultural commodity exports by contractors in fulfillment of barter contracts with the Commodity Credit Corporation totaled approximately \$28.5 million for this reporting period. Materials bartered for during this reporting period were celestite, asbestos (chrysotile), selenium, and manganese ore (metallurgical).

Strategic and other materials valued at approximately \$1,463.4 million have been delivered under barter contracts from July 1954 through June 1963, of which materials worth approximately \$43.8 million were delivered during this reporting period. Cumulative transfers to stockpile since July 1954 have totaled approximately \$1,422.0 million (\$151.1 million to the National Stockpile and \$1,270.5 million to the Supplemental Stockpile).

CCC barter has been used successfully on a number of occasions to forego expenditures abroad to a total of approximately \$57 million where other U.S. Government agencies have contractually obligated to purchase stockpile materials. By converting such U.S. dollar contracts to barter contracts, CCC acquired the same materials with

payment in U.S. surplus agricultural commodities, thereby helping our balance of payments position.

Barter activities are carried out under authority contained in the Commodity Credit Corporation Charter Act, the Agricultural Trade Development and Assistance Act of 1954, as amended, and related legislation.

## TRANSFERS FROM STOCKPILE FOR DISPOSAL

Under Public Law 87-548, all extra long staple cotton remaining in the National Stockpile was withdrawn and transferred to the Commodity Credit Corporation in August 1962 for disposition. The cotton transferred consisted of 47,518 bales of domestic growth and about 123,000 bales (running) of Egyptian and Sudanese growth.

The domestically-produced cotton was added to the Commodity Credit Corporation catalog of American-Egyptian stockpile cotton, making a total of 53,740 bales. This cotton has been made available for sale each week since August 1962 under the CCC sales program covering such cotton. Since August 1, 1962, an additional 6,540 bales have been sold, reducing CCC's inventory of the domestically-produced stockpile cotton to 47,200 bales as of July 24, 1963.

On May 28, 1963, the Department of Agriculture, pursuant to PL-87-548, announced an export sales program covering the foreign grown portion of the stockpile cotton. Under this program, selected quantities of such cotton are offered on a competitive bid basis for sale for export at world market prices as determined by the Secretary. Offers are opened every other Wednesday. Through offers opened on July 17, 1963, cumulative sales under the program totaled 809 bales, reducing CCC's inventory of foreign-grown cotton to about 122,000 bales as of July 24, 1963.

## Activities of the Department of the Interior Relating to Strategic and Critical Materials

The Department of the Interior has the responsibility for the management, conservation, and adequate development of the Nation's natural resources to meet the requirements of national security and an expanding national economy. The Department assists the Office of Emergency Planning in formulating and carrying out programs for the stockpiling of critical materials. The Bureau of Mines conducts research in mining, beneficiation, and metallurgy and compiles information on production and consumption for use in stockpile planning. The Department is responsible for preparedness programs covering electric power, petroleum and gas, solid fuels and minerals and conducts resource-requirements studies in order to identify problem areas, develop recommendations and programs for the maintenance of a sufficient mobilization base. The Department also administers programs to encourage the exploration, development and mining of minerals and metals for emergency purposes.

### BERYLLIUM

The Department of the Interior has continued its nationwide study of potential domestic beryllium resources and research on mineral beneficiation and research on the extraction, refinement, and fabrication of beryllium. A fluosilicate sinter-water leach process for extracting beryllium from beryl-spodumene concentrate containing 10 to 30 percent beryl was reported and a fluosilicate-solvent extraction procedure was developed for the extraction of beryllium from clayey ores which are not amenable to flotation. Patent No. 3,078,997 was granted on flotation process developed for concentrating phenacite, bertrandite, and beryl.

The construction and use of a mobile spectroscopic laboratory for testing samples of rock in the field for beryllium and its associated metals was described in a Bureau of Mines report.

The purest beryllium ever prepared in the Bureau was produced by a double electrorefining procedure using high-purity beryllium electrorefined from scrap as the feed material. All of the metallic impurities in the product except calcium were below the limits of analytical detection.

### COLUMBIUM AND TANTALUM

A new method was developed for separating columbium and tantalum in which columbium oxide is converted to volatile columbium oxychloride, leaving tantalum unattacked. The method is especially attractive because it can be applied directly to minerals such as euxenite and columbite.

A procedure was developed to electrodeposit columbium with an oxygen content of less than one percent from an open cell. Previously columbium of this quality could be electrodeposited only in closed cells under inert atmospheres.

### COPPER

An unusual brine has been discovered in a deep test well drilled to develop geothermal energy at Niland, California. The hot brine contains exceptional amounts of heavy metals and rare elements. In a three-month period, some five or more tons of precipitates were removed from the surface piping that contained about 20 percent copper and 381 ounces of silver. This may prove to be the first example of an actual ore-forming solution.

### COPPER-LEAD-ZINC

Announcement by the Geological Survey of the location of a favorable prospecting target for copper, lead and zinc in the Ward Mountain area south of Ely, Nevada, initiated a major flurry of mining claim staking, currently being followed with intensive exploration by several mining companies. The target area was defined by coincident aeromagnetic and geochemical anomalies in a geologic environment similar to known copper and other base metal deposits in the region.

### MERCURY

The known area of quicksilver mineralization in west-central Alaska has been extended westward by 100 miles with the discovery of cinnabar near Wolf Creek Mountain, some 200 miles southeast of Nome. Although specimens obtained in the course of brief regional geologic mapping, using helicopter transportation, were not of apparent ore grade, mineralized rhyolite occurs in a relatively large area that has not previously been prospected because of difficult access.

# Reports Dealing With Stockpile Material Issued by U.S. Geological Survey

January-June 1963

## Maps

- MF-257      Geologic map of the southern part of the Casar quadrangle, Cleveland, Lincoln, and Burke Counties, N. C. showing areas mined for monazite and mica, by W. C. Overstreet, J. W. Whitlow, A. M. White, and W. R. Griffiths.
- MR-36      Niobium and tantalum in the United States, exclusive of Alaska and Hawaii, by R. L. Parker.

## Professional Papers

- 362          Geology and manganese deposits of the Maple and Hovey Mountains area, Aroostook County, Maine, by Louis Pavlides.
- 368          Geology and ore deposits of the Darwin quadrangle, Inyo County, California, by W. E. Hall and E. M. MacKevett, Jr. (Lead, zinc, tungsten).
- 425          Geochemistry and petrology of the alkalic igneous complex at Magnet Cove, Arkansas, by R. L. Erickson and L. V. Blade. (Columbium, titanium, rare earths).

## Bulletins

- 1112-G      Geology and mineral deposits of the area south of Telluride, Colorado, by J. S. Vhay (Lead-zinc-silver).
- 1123-C      Geology of the Dubuque North quadrangle, Iowa-Wisconsin-Illinois, by J. W. Whitlow and C. E. Brown. (Zinc-lead).
- 1142-A      Geology and mineral deposits of the Twin Crags quadrangle, Idaho, by A. B. Campbell and S. E. Good. (Zinc-lead).
- 1142-E      Geology of the Calamity Peak area, Custer County, S. Dak., by D. H. Kupfer. (Beryl).
- 1142-M      Geology of the beryllium deposits in the Thomas Range, Juab County, Utah, by M. H. Staatz.
- 1162-C      Selenium in some oxidized sandstone-type uranium deposits, by D. F. Davidson.

## Circular

- 479          Beryllium deposits of the Western Seward Peninsula, Alaska, by C. L. Sainsbury.

## Short Papers in Geological Survey Research 1962

### Professional Paper 450-E.

- Brokaw, A. L. and others, Mineralization associated with a magnetic anomaly in part of the Ely quadrangle, Nevada, Article 180. (Copper, lead, zinc).
- Parker, R. L. and Hillbrand, F. A., Preliminary report on alkalic intrusive rocks in the northern Wet Mountains, Colorado, Article 181. (Niobium, rare earths, thorium).

## Short Papers in Geological Survey Research 1963

### Professional Paper 475-B

- Parker, R. L. and Havens, R. G., Thortveitite associated with fluorite, Ravalli County, Montana, Article 2. (Fluorite, rare earths).
- Lesure, F. G., and others, Beryllium in the tin deposits of Irish Creek, Virginia, Article 3.
- Griffitts, W. R., and Rader, L. F., Jr., Beryllium and fluorine in mineralized tuff, Spor Mountain, Juab County, Utah, Article 4.
- Griffitts, W. R., and Powers, H. A., Beryllium and fluorine content of some silica volcanic glasses from Western United States, Article 5.

# **Reports Dealing With Strategic and Other Materials Issued by the Bureau of Mines**

**January-June 1963**

## **Reports of Investigations**

- 6063 Metallurgical Investigations of Philippine Nickeliferous Ores.
- 6077 Synthetic Mica From Low Cost Raw Materials.
- 6082 Flotation of Siegenite in a Complex Sulfide Table Middling From Southeast Missouri. (nickel-cobalt)
- 6094 Titanium Resources of Nelson and Amherst Counties, Va. (in Two Parts). 1. Sapolite Ores.
- 6095 Cemented Tungsten Carbide With Titanium Diboride Additions.
- 6101 Columbium-Hafnium Binary Alloys for Elevated Temperature Service.
- 6114 Disposal of Liquid Waste in the Resin-in-Pulp-Type Uranium Milling Flowsheet.
- 6115 Thermal Expansion of Magnesium Oxide: An Interlaboratory Study.
- 6119 Investigation of Manganese Deposits, Hodgdon and Linneus Townships, Southern District, Aroostook County, Maine.
- 6130 Low-Temperature Heat Capacities and Entropies at 298.15°K. of Magnesium Matavanadate and Magnesium Pyrovanadate.
- 6132 Spectrochemical Determination of Beryllium in Mineral Beneficiation Products.
- 6133 Methods for Producing Alumina From Clay. An Evaluation of Five Hydrochloric Acid Processes.
- 6137 Determination of Stresses Around an Underground Opening, Climax Molybdenum Mine, Colorado.
- 6141 Trenching and Sampling of the Rhyolite Mercury Prospect, Kuskokwim River Basin, Alaska.
- 6143 Heats and Free Energies of Formation of Calcium Tungstate, Calcium Molybdate, and Magnesium Molybdate.
- 6146 Heat of Solution of Cerium Metal in Hydrochloric Acid.
- 6147 Low-Temperature Heat Capacities and Entropies at 298.15° K of Monomolybdates of Sodium, Magnesium, and Calcium.
- 6148 Methods for Analyzing Tungsten Ores and Concentrates.
- 6153 Treating Beryl-Spodumene Concentrates Containing 10 to 30 Percent Beryl by the Fluosilicate Process.
- 6154 Experiments in Fused-Salt Electrolysis of Tungsten.
- 6155 Thermodynamic Properties of Yttrium Metal and Iron Pentacarbonyl at High Temperatures. (rare earth).
- 6156 Recovery of Beryllium From Utah Ore.
- 6159 Separation and Recovery of Cobalt and Nickel by Solvent Extraction and Electrowinning.
- 6160 Differential Sulfatizing Process for the Recovery of Ferrograde Manganese.
- 6161 Electrolytic Methods of Preparing Cell Feed for Electrowinning Titanium.
- 6162 Reaction Rate of Titanium and Titanium Subchlorides in Molten Sodium Chloride.
- 6170 Effect of Indium on the Solid Solubility of Calcium and of Silicon in Magnesium.
- 6171 Heats and Free Energies of Formation of Barium Oxide and Strontium Oxide.
- 6172 Flotation of Ilmenite From Virginia Sapolite and Unweathered Diorite Ores.
- 6173 Recovery of Beryllium From Spor Mountain, Utah, Ore by Solvent Extraction and Caustic Stripping.
- 6174 Pressure Forming of Aluminum Oxide.
- 6175 High-Temperature Heat Contents and Entropies of the Sesquioxides of Erbium, Holmium, Thulium, Ytterbium. (rare earths).
- 6177 Heats and Free Energies of Formation of Vanadium Nitride and Vanadium Carbide.
- 6180 Thermal Expansion of the Oxides of Yttrium, Cerium, Samarium, Europium, and Dysprosium. (rare earths).
- 6186 Recovery of Low-Silica Cryolite From Siliceous Fluoride Offgases.
- 6187 Selective Flotation of Barite-Fluorspar Ores From Kentucky.
- 6191 Low-Temperature Heat Capacities and Entropies at 298.15°K of Sodium Dimolybdate and Sodium Ditungstate.
- 6193 Oxidation Leaching of Copper Sulfides in Acidic Pulp at Elevated Temperatures and Pressures.

#### Reports of Investigations—Con.

- 6197 Heats and Free Energies of Formation of Vanadates of Lead and Manganese.
- 6202 Infrared Studies of Oleic Acid and Sodium Oleate Adsorption on Fluorite, Barite, and Calcite.
- 6204 Measurements of Surface Subsidence, San Manuel Mine, Pinal County, Ariz.
- 6205 Chelating Agents in Separation of Rare-Earth Compounds by Solvent Extraction With Amines.
- 6206 Pine Flat and Diamond Flat Nickel-Bearing Laterite Deposits, Del Norte County, Calif.
- 6208 A Mobile Spectroscopic Laboratory for Reconnaissance and Exploration. (beryllium)
- 6213 Flotation Concentration of Complex Barite-Fluorspar Ore.
- 6214 Reconnaissance of Beach Sands, Bristol Bay, Alaska. (titaniferous magnetite)
- 6215 Segregation of Copper Ores by Direct-Firing Methods.
- 6219 Beneficiation of Aluminum Plant Residues.
- 6223 Concentration of Fine Mica.
- 6225 Two-Stage Electric Furnace Smelting of High-Iron Manganiferous Materials for Producing Ferromanganese.
- 6228 Lead and Barium Disilic Fluorimicas.
- 6229 Methods for Producing Alumina From Clay. An Evaluation of Three Sulfuric Acid Processes.
- 6230 Reclaiming S-816 High-Temperature Alloy Scrap. (cobalt-base)
- 6231 High-Temperature Corrosion Studies. Nickel and Cobalt in Air and Oxygen.
- 6234 Statistical Analysis of Diamond-Drill Sample Data From the Cebolla Creek Titaniferous Iron Deposit, Gunnison County, Colo.
- 6240 Thermodynamic Properties of Beryllium Sulfate From 0° to 900° K.
- 6241 High-Temperature Heat-Content and Entropy Data for Vanadium Silicide (V<sub>3</sub>Si).
- 6242 Yttrium Behavior in Rare-Earth-Amine Extraction System and Effect of Sequestrants.
- 6248 High-Temperature Heat Contents and Entropies of Sesquioxides of Lutetium, Dysprosium, and Cerium. (rare earths)
- 6251 Heats of Formation of Gehlenite and Talc.

#### Information Circulars

- 8104 Mining, Milling, and Smelting Methods, San Manuel Copper Corp., Pinal County, Ariz.
- 8120 Columbium and Tantalum. A Materials Survey.
- 8123 Aluminum Fabrication in the Pacific Northwest: An Economic Survey.
- 8124 Technological and Economic Problems of Rare-Earth-Metal and Thorium Resources in Colorado, New Mexico, and Wyoming.
- 8125 Mica. A Materials Survey.
- 8129 Open-Pit Operations at the Tripp Pit, Consolidated Coppermines Corp., Kimberly, Nev.
- 8142 Mining and Milling Methods and Costs, Eastern Magnesia Talc Co., Johnson Mine, Johnson, Vt.
- 8143 Secondary Nonferrous Metals Industry in California, With Data on Nevada and Hawaii. (copper, lead, aluminum, zinc)
- 8144 Manganese Mining and Milling Methods and Costs, Mohave Mining and Milling Co., Maricopa County, Ariz.
- 8153 Open-Pit Copper Mining and Concentrating Methods and Costs, Silver Bell Unit, American Smelting and Refining Co., Pima County, Ariz.
- 8154 Mining Methods and Costs, Inspiration Consolidated Copper Co. Open-Pit Mine, Gila County, Ariz.
- 8158 Beryllium Investigations in California and Nevada, 1959-62.
- 8160 Review of Major Proposed Processes for Recovering Manganese From United States Resources (in Three Parts). 2. Chloride and Fixed Nitrogen Processes.
- 8163 Rare Elements in Coal.
- 8174 Mining Methods and Costs, Deep Creek Zinc-Lead Mine, Goldfield Consolidated Mines Co., Stevens County, Wash.

# STATUS OF OBLIGATIONAL OPERATIONS

Under PL 117 and PL 520 for The National Stockpile

AS OF JUNE 30, 1963

AUTHORITY	APPROPRIATED FUNDS <sup>a/</sup>	AUTHORIZATIONS FOR		TOTAL OBLIGATIONAL AUTHORITY (CUMULATIVE) <sup>e/</sup>
		MAKING ADVANCE CONTRACTS <sup>b/</sup>	LIQUIDATING OUTSTANDING ADVANCE CONTRACTS <sup>c/</sup>	
<u>Under PL 117 - 76th Congress</u>				
PL 361 - 76th Congress, August 9, 1939	\$ 10,000,000	\$	\$	\$ 10,000,000
PL 442 - 76th Congress, March 23, 1940	12,500,000			22,500,000
PL 667 - 76th Congress, June 26, 1940	<u>47,500,000</u>			<u>70,000,000 <sup>d/</sup></u>
<u>Under PL 520 - 79th Congress</u>				
PL 663 - 79th Congress, August 8, 1946	100,000,000	-	-	100,000,000
PL 271 - 80th Congress, July 30, 1947	100,000,000	75,000,000	-	275,000,000
PL 785 - 80th Congress, June 25, 1948	225,000,000	300,000,000	-	800,000,000
PL 785 - 80th Congress, June 25, 1948	75,000,000	-	75,000,000	800,000,000
PL 119 - 81st Congress, June 23, 1949	40,000,000	270,000,000	-	1,110,000,000
PL 150 - 81st Congress, June 30, 1949	275,000,000	250,000,000	-	1,635,000,000
PL 150 - 81st Congress, June 30, 1949	250,000,000	-	250,000,000	1,635,000,000
PL 434 - 81st Congress, October 29, 1949	-	-	100,000,000 <sup>e/</sup>	1,535,000,000
PL 759 - 81st Congress, September 6, 1950	365,000,000	125,000,000	240,000,000	1,660,000,000
PL 759 - 81st Congress, September 6, 1950	240,000,000	-	-	2,025,000,000
PL 843 - 81st Congress, September 27, 1950	573,232,449 <sup>e/</sup>	-	-	2,598,232,449
PL 911 - 81st Congress, January 6, 1951	1,834,911,000	-	-	4,433,143,449
PL 253 - 82nd Congress, November 1, 1951	590,216,500	-	-	5,023,359,949
PL 253 - 82nd Congress, November 1, 1951	200,000,000	-	200,000,000	5,023,359,949
PL 455 - 82nd Congress, July 25, 1952	203,979,000	-	70,000,000	5,157,338,949
PL 176 - 83rd Congress, July 31, 1953	-	-	30,000,000	5,127,338,949
PL 428 - 83rd Congress, June 24, 1954	-	-	27,600,000	5,095,738,949
PL 663 - 83rd Congress, August 26, 1954	379,952,000 <sup>b/</sup>	-	-	5,475,690,949
PL 112 - 84th Congress, June 30, 1955	321,721,000 <sup>c/</sup>	-	-	5,801,411,949
PL 112 - 84th Congress, June 30, 1955	27,400,000	-	-	5,801,411,949
PL 844 - 85th Congress, August 28, 1958	3,000,000	-	27,400,000	5,804,411,949
Reauthorized by PL 255 - 86th Congress, September 14, 1959	-58,370,923 <sup>d/</sup>	-	-	5,746,041,026
PL 626 - 86th Congress, July 12, 1960	22,237,000 <sup>e/</sup>	-	-	5,768,278,026
PL 141 - 87th Congress, August 17, 1961	16,682,510 <sup>f/</sup>	-	-	5,784,960,536
PL 741 - 87th Congress, October 3, 1962	8,729,887 <sup>g/</sup>	-	-	5,793,690,423
Total PL 520	<u>5,793,690,423 <sup>h/</sup></u>	<u>\$1,020,000,000</u>	<u>\$1,020,000,000</u>	<u>5,793,690,423</u>
Total PL 117 and 520	<u>\$5,853,450,233 <sup>i/</sup></u>			<u>\$5,853,450,233</u>

<sup>a/</sup> Congressional appropriations of funds for stockpiling purposes.  
<sup>b/</sup> Congressional appropriations of funds for stockpiling purposes in advance of appropriation of funds.  
<sup>c/</sup> Congressional authorization of contracting authority for stockpiling purposes incurred under previously authorized authority.  
<sup>d/</sup> Cumulative total of appropriated funds and advance contract authorization, less authorization to liquidate outstanding advance contracts.  
<sup>e/</sup> Excludes \$8,865,792 received from sale of stockpile materials for wartime consumption. Receipts were returned to Treasury, February 1949.  
<sup>f/</sup> Cancellation of previously authorized authority to make contracts.  
<sup>g/</sup> Excludes \$4,000,000 transferred to operating expenses for rehabilitation of Government-owned material producing plants.  
<sup>h/</sup> Excludes \$4,000,000 transferred to operation and Public Utilities Service, GSA.  
<sup>i/</sup> As of June 30, 1959 this amount included cash of \$52,350,792 and receivables of \$6,020,131.  
<sup>j/</sup> Excludes \$7,763,000 transferred to other GSA Funds for classified and wage board salary increases during 1961.  
<sup>k/</sup> Appropriation of \$40,000,000 of which \$22,700 transferred to Office of Administrator, GSA and \$21,294,790 transferred to General Fund Receipts.  
<sup>l/</sup> Appropriation of \$18,095,000 less transfers to General Fund Receipts of \$9,365,113.  
<sup>m/</sup> Excludes receipts from rotational sales.

SOURCE:  
GENERAL SERVICES ADMINISTRATION



# TOTAL OBLIGATIONS AND EXPENDITURES OF STOCKPILING FUNDS

Under PL 117 and PL 520 for THE NATIONAL STOCKPILE

CUMULATIVE AND BY FISCAL PERIOD THROUGH JUNE 30, 1963

Fiscal Period	OBLIGATIONS INCURRED		EXPENDITURES	
	Net Change By Fiscal Period	A/ Cumulative As of End of Period	By Fiscal Period	B/ Cumulative As of End of Period
Prior to Fiscal Year 1948	\$ 123,871,685	\$ 123,871,685	\$ 66,330,731	\$ 66,330,731
Fiscal Year 1948	252,901,411	376,773,096	82,907,575	149,238,306
Fiscal Year 1949	459,766,881	836,539,977	304,486,177	453,724,483
Fiscal Year 1950	680,427,821	1,516,967,798	440,834,970	894,559,453
Fiscal Year 1951	2,075,317,099	3,592,284,897	655,537,199	1,550,096,652
Fiscal Year 1952	948,117,547	4,540,402,444	844,683,459	2,394,780,111
Fiscal Year 1953	252,375,163	4,792,777,607	906,158,850	3,300,938,961
Fiscal Year 1954	116,586,681	4,909,364,288	644,760,321	3,945,699,282
Fiscal Year 1955	321,799,833	5,231,164,121	801,310,094	4,747,009,376
Fiscal Year 1956 C/	251,692,667	5,482,856,788	382,011,786 C/	5,129,021,162 C/
Fiscal Year 1957	190,000,109	5,672,856,897	354,576,558	5,483,597,720
Fiscal Year 1958	54,473,250	5,727,330,147	173,753,997	5,657,351,717
Fiscal Year 1959	38,710,879	5,766,041,026	65,260,098	5,722,611,815
Fiscal Year 1960	19,859,290	5,785,900,316	49,227,142	5,771,838,957
Fiscal Year 1961	29,082,919	5,814,983,235	33,325,431	5,805,164,388
Fiscal Year 1962	31,179,407	5,846,162,642	33,695,431	5,838,859,819
Fiscal Year 1963	17,414,900	5,863,577,542	22,104,176	5,860,963,995

A/ Figures are the sum of obligations incurred under PL 520, 79th Congress and PL 117, 76th Congress.  
Final obligations under PL 117, 76th Congress were incurred in Fiscal Year 1949.

B/ Figures are the sum of expenditures under PL 520, 79th Congress and PL 117, 76th Congress.  
Final expenditures under PL 117, 76th Congress were made in Fiscal Year 1951.

C/ 1956 and subsequent fiscal periods and cumulative expenditures are reported on an accrual basis.

SOURCE: GENERAL SERVICES ADMINISTRATION

EXPENDITURES OF STOCKPILE FUNDS, BY TYPE  
(for the National Stockpile)

Cumulative and for Second Half Fiscal Year 1963

Type of Expenditure	Cumulative Through December 31, 1962	Six Months Ended June 30, 1963	Cumulative Through June 30, 1963
Expenditures			
Gross Total	\$6,394,518,346	\$8,866,353	\$6,403,384,699
Less: Adjustment for Receipts from Rotation Sales and Reimbursements	542,282,451	138,253	542,420,704
Net Total	5,852,235,895	8,728,100	5,860,963,995
Material Acquisition Costs, Total	5,435,582,469	516,672	5,436,099,141
Stockpile Maintenance Costs, Total	363,039,450	6,251,504	369,290,954
Facility Construction	43,772,457	0	43,772,457
Storage and Handling Costs	216,576,360	6,180,440	222,756,800
Net Rotation Costs	102,690,633	71,064	102,761,697
Administrative Costs	47,819,125	1,326,361	49,145,486
Operations, Machine Tool Program	5,794,851	633,563	6,428,414

a/ Cumulative figures are the total of expenditures under PL 117, 76th Congress and PL 520, 79th Congress. Expenditures under PL 117 totaled \$70,000,000 of which \$55,625,237 was for materials acquisition costs and \$14,374,763 was for other costs. Final expenditures under PL 117 were made in FY 1951.

SOURCE: GENERAL SERVICES ADMINISTRATION